RECLAMATION SURETY ESTIMATE

IMM - Dworkin

last revision

02/08/02

Yellow Hammer/Clifton - IP Project - Kiewit

M/045/019

E/045/052

Tooele County

Prepared by Utah State Division of Oil, Gas & Mining

-This estimate uses a D8 size dozer for most earthwork

-This site has been recountoured and seeded - bond calculated for revegetation success only

Note: actual unit costs may vary according to site	pdate	2-Aug-00				
-Amount of disturbed area which will receive reclan	8.6 ac	res				
-Estimated total disturbed area for this mine =			8.6 acres			
Activity	Quantity	<u>Units</u>	\$/unit	<u>\$</u>	Note	
Ripping recontoured areas prior to reseeding	8.6 ac	re	234	2012		
Mulching (2 ton/acre alfalfa)	0 ac	0 acre 0 acre 8.6 acre		0	0 (00)	
Fertilizing (100 lb/acre diammonium phosphate)	0 ac					
Composted manure (10 ton/acre)	8.6 ac			2580	, ,	
Broadcast seeding	8.6 acre 0 acre 0 acre		225	1935	, ,	
Drill seeding			205 800			
Hydroseeding						
General site cleanup & trash removal	0 ac	re	50	0	(00)	
Equipment mobilization	1 eq	uip	1000	1000	(00)	
	Subtotal			7,527		
10% Contingency				753		
	Subtotal			8,280		
Escalate for 3 years at 3.12% per yr				799	_	
	То	Total		\$9,080		
Rounded surety amount in yr 2005-\$ \$9,10						
Average cost per disturbed acre =						

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Note: actual unit costs may vary according to site	2-Aug-00				
Amount of disturbed area which will receive reclaim	6 acres	12			
Estimated total disturbed area for this mine =		8.0	8.6 acres		
Activity	Quantity	Units \$/unit	\$	Note	
Ripping recontoured areas prior to reseeding	8.6 acre	e 23	4 2012		
Mulching (2 ton/acre alfalfa)	0 acre	e 160	0 0	(00) (00)	
Fertilizing (100 lb/acre diammonium phosphate)	0 acre	90	0 0		
Composted manure (10 ton/acre)	8.6 acre	300	2580	(00)	
Broadcast seeding	8.6 acre	223	5 1935	(00) (00) (00)	
rill seeding ydroseeding	0 acre	203	5 0		
	0 acre	800	0 0		
General site cleanup & trash removal	0 acre	50	0 0	(00)	
Equipment mobilization	1 equ	ip 1000	1000	(00)	
	Sub	total	7,527	,527	
0% Contingency			753		
	Sub	total	8,280	1	
Escalate for 3 years at 3.12% per yr			799		
	Tota	al	\$9,080		
Rour	nded surety amount in	n yr 2005-\$	\$9,100		
Average cost per disturbed acre = \$1,058					